

# 2-step function machines

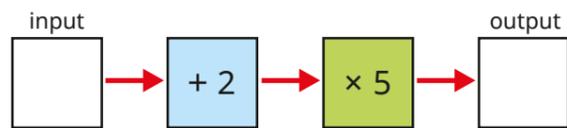
1 a) Use the function machine to complete the table.



Input	1	2	3	5	10	50
Output						

Here is another function machine.

The operations are the same, but in the reverse order.



Teddy

The outputs will be the same.



Jack

The outputs will be different.

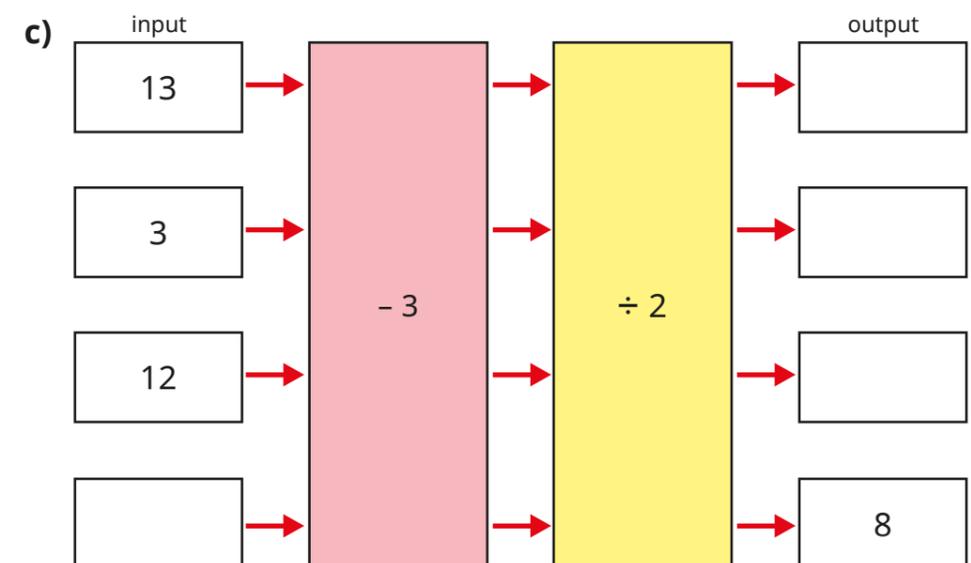
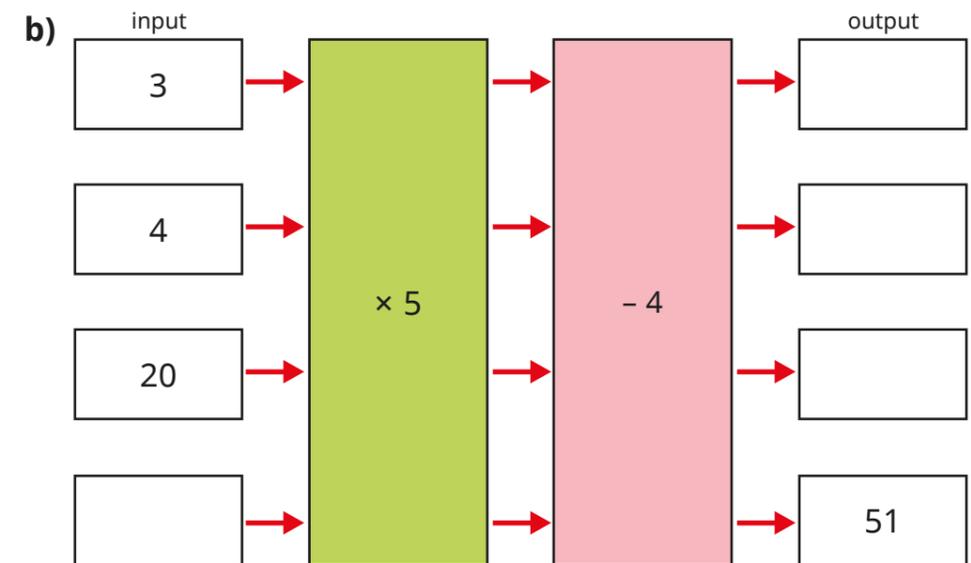
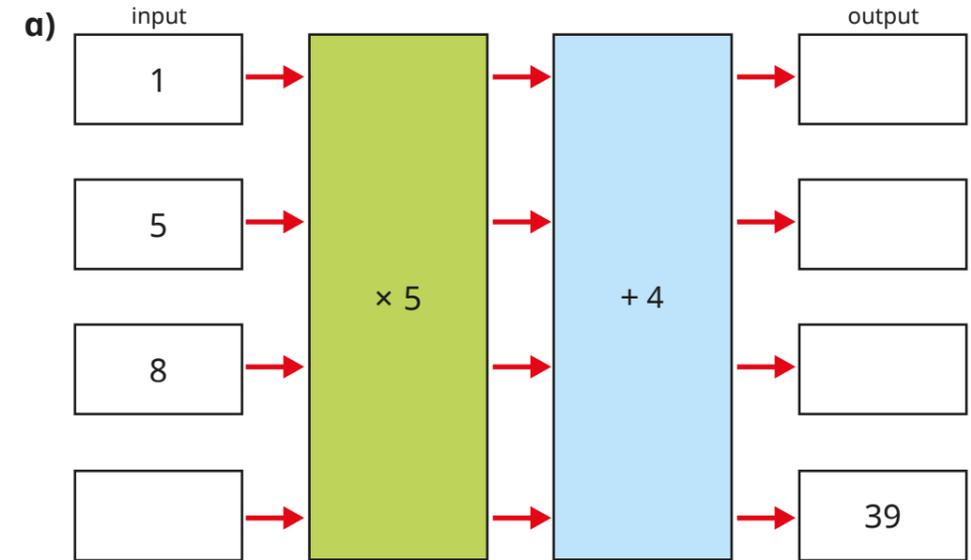
b) Explain to a partner who you think is correct.

c) Complete the table for the second function machine.

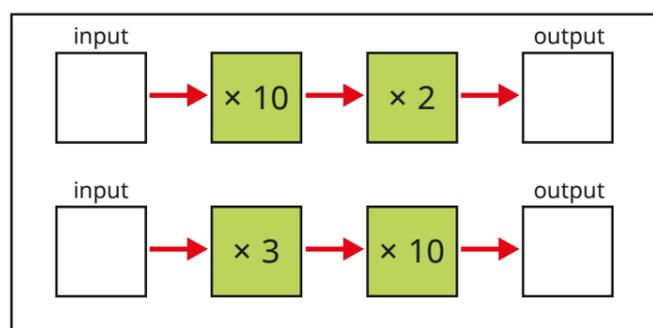
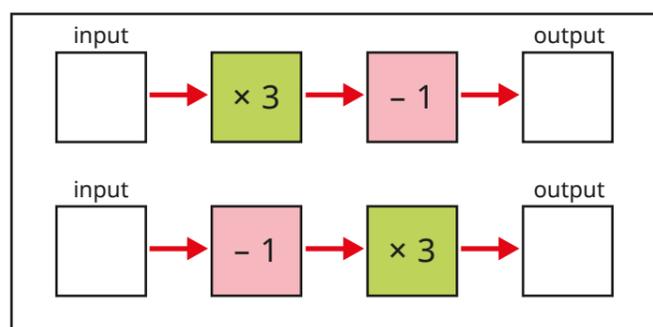
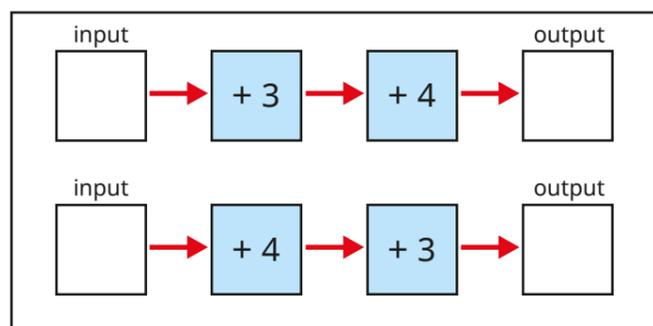
Input	1	2	3	5	10	50
Output						

d) Who is correct? \_\_\_\_\_

2 Work out the missing outputs and inputs.

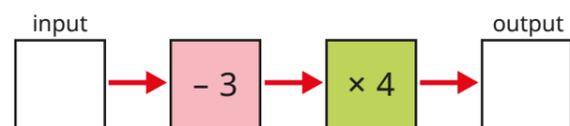


- 3 Tick the pairs of function machines that will give the same outputs for a given input.



Explain your reasoning to a partner.

- 4 Here is a function machine.



- a) Use the function machine to complete the table.

Input	10	3		
Output			40	280

- b) Rosie puts a number into the machine and she gets out the same number.

Work out Rosie's number.

- 5 Mr Hall and Mrs Rose order some photos online.



- a) Mr Hall orders 16 photos.  
How much does he pay?

- b) Mrs Rose pays £6.05  
How many photos did she order?

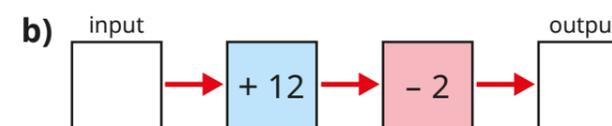
- 6 Here are some 2-step function machines.

For each machine, write a single step that would give the same output.

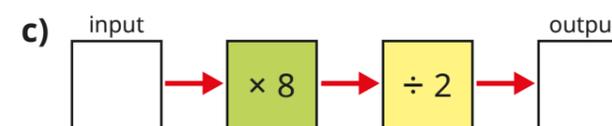
Check your answers by inputting values.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

Can all 2-step function machines be written as a 1-step function machine? \_\_\_\_\_

Talk about it with a partner.